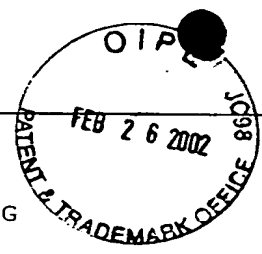


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Roger Abseher

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Gly Arg Ile Asp Ala Thr Val Val Arg Ile Gly Thr Phe Cys Ser Asn

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ggc act gtg tcc cgg atc aag atg caa gaa gga gtg aaa atg gcc tta				870
Gly Thr Val Ser Arg Ile Lys Met Gln Glu Gly Val Lys Met Ala Leu				
	185	190	195	
cac ctc cca tgg ttc cac ccc aga aat gtc tcc ggc ttc agc att gca				918
His Leu Pro Trp Phe His Pro Arg Asn Val Ser Gly Phe Ser Ile Ala				
	200	205	210	
aac cgc tca tct ata aaa cgt ctg tgc atc atc gag tct gtg ttt gag				966
Asn Arg Ser Ser Ile Lys Arg Leu Cys Ile Ile Glu Ser Val Phe Glu				
	215	220	225	
ggt gaa ggc tca gca acc ctg atg tct gcc aac tac cca gaa ggc ttc				1014
Gly Glu Gly Ser Ala Thr Leu Met Ser Ala Asn Tyr Pro Glu Gly Phe				
	230	235	240	
cct gag gat gag ctc atg acg tgg cag ttt gtc gtt cct gca cac ctg				1062
Pro Glu Asp Glu Leu Met Thr Trp Gln Phe Val Val Pro Ala His Leu				
	245	250	255	260
cgg gcc agc gtc tcc ttc ctc aac ttc aac ctc tcc aac tgt gag agg				1110
Arg Ala Ser Val Ser Phe Leu Asn Phe Asn Leu Ser Asn Cys Glu Arg				
	265	270	275	
aag gag gag cgg gtt gaa tac tac atc ccg ggc tcc acc acc aac ccc				1158
Lys Glu Glu Arg Val Glu Tyr Tyr Ile Pro Gly Ser Thr Thr Asn Pro				
	280	285	290	
gag gtg ttc aag ctg gag gac aag cag cct ggg aac atg gcg ggg aac				1206
Glu Val Phe Lys Leu Glu Asp Lys Gln Pro Gly Asn Met Ala Gly Asn				
	295	300	305	
ttc aac ctc tct ctg caa ggc tgt gac caa gat gcc caa agt cca ggg				1254
Phe Asn Leu Ser Leu Gln Gly Cys Asp Gln Asp Ala Gln Ser Pro Gly				
	310	315	320	
atc ctc cgg ctg cag ttc caa gtt ttg gtc caa cat cca caa aat gaa				1302
Ile Leu Arg Leu Gln Phe Gln Val Leu Val Gln His Pro Gln Asn Glu				
	325	330	335	340
agc aat aaa atc tac gtg gtt gac ttg agt aat gag cga gcc atg tca				1350
Ser Asn Lys Ile Tyr Val Val Asp Leu Ser Asn Glu Arg Ala Met Ser				
	345	350	355	
ctc acc atc gag cca cgg ccc gtc aaa cag agc cgc aag ttt gtc cct				1398
Leu Thr Ile Glu Pro Arg Pro Val Lys Gln Ser Arg Lys Phe Val Pro				
	360	365	370	
ggc tgt ttc gtg tgt cta gaa tct cgg acc tgc agt agc aac ctc acc				1446
Gly Cys Phe Val Cys Leu Glu Ser Arg Thr Cys Ser Ser Asn Leu Thr				
	375	380	385	
ctg aca tct ggc tcc aaa cac aaa atc tcc ttc ctt tgt gat gat ctg				1494

A1

Leu	Thr	Ser	Gly	Ser	Lys	His	Lys	Ile	Ser	Phe	Leu	Cys	Asp	Asp	Leu		
390						395					400						
aca	cgt	ctg	tgg	atg	aat	gtg	gaa	aaa	acc	ata	agc	tgc	aca	gac	cac	1542	
Thr	Arg	Leu	Trp	Met	Asn	Val	Glu	Lys	Thr	Ile	Ser	Cys	Thr	Asp	His		
405					410					415					420		
cgg	tac	tgc	caa	agg	aaa	tcc	tac	tca	ctc	cag	gtg	ccc	agt	gac	atc	1590	
Arg	Tyr	Cys	Gln	Arg	Lys	Ser	Tyr	Ser	Leu	Gln	Val	Pro	Ser	Asp	Ile		
				425					430					435			
ctc	cac	ctg	cct	gtg	gag	ctg	cat	gac	ttc	tcc	tgg	aag	ctg	ctg	gtg	1638	
Leu	His	Leu	Pro	Val	Glu	Leu	His	Asp	Phe	Ser	Trp	Lys	Leu	Leu	Val		
			440					445						450			
ccc	aag	gac	agg	ctc	agc	ctg	gtg	ctg	gtg	cca	gcc	cag	aag	ctg	cag	1686	
Pro	Lys	Asp	Arg	Leu	Ser	Leu	Val	Leu	Val	Pro	Ala	Gln	Lys	Leu	Gln		
		455					460					465					
cag	cat	aca	cac	gag	aag	ccc	tgc	aac	acc	agc	ttc	agc	tac	ctc	gtg	1734	
Gln	His	Thr	His	Glu	Lys	Pro	Cys	Asn	Thr	Ser	Phe	Ser	Tyr	Leu	Val		
	470					475					480						
gcc	agt	gcc	ata	ccc	agc	cag	gac	ctg	tac	ttc	ggc	tcc	ttc	tgc	ccg	1782	
Ala	Ser	Ala	Ile	Pro	Ser	Gln	Asp	Leu	Tyr	Phe	Gly	Ser	Phe	Cys	Pro		
485					490					495					500		
gga	ggc	tct	atc	aag	cag	atc	cag	gtg	aag	cag	aac	atc	tgc	gtg	acc	1830	
Gly	Gly	Ser	Ile	Lys	Gln	Ile	Gln	Val	Lys	Gln	Asn	Ile	Ser	Val	Thr		
				505					510					515			
ctt	cgc	acc	ttt	gcc	ccc	agc	ttc	caa	caa	gag	gcc	tcc	agg	cag	ggc	1878	
Leu	Arg	Thr	Phe	Ala	Pro	Ser	Phe	Gln	Gln	Glu	Ala	Ser	Arg	Gln	Gly		
			520					525					530				
ctg	acg	gtg	tcc	ttt	ata	cct	tat	ttc	aaa	gag	gaa	ggc	gtt	ttc	acg	1926	
Leu	Thr	Val	Ser	Phe	Ile	Pro	Tyr	Phe	Lys	Glu	Glu	Gly	Val	Phe	Thr		
			535				540					545					
gtg	acc	cct	gac	aca	aaa	agc	aag	gtc	tac	ctg	agg	acc	ccc	aac	tgg	1974	
Val	Thr	Pro	Asp	Thr	Lys	Ser	Lys	Val	Tyr	Leu	Arg	Thr	Pro	Asn	Trp		
	550					555					560						
gac	cgg	ggc	ctg	cca	tcc	ctc	acc	tct	gtg	tcc	tgg	aac	atc	agc	gtg	2022	
Asp	Arg	Gly	Leu	Pro	Ser	Leu	Thr	Ser	Val	Ser	Trp	Asn	Ile	Ser	Val		
565					570					575					580		
ccc	aga	gac	cag	gtg	gcc	tgc	ctg	act	ttc	ttt	aag	gag	cgg	agc	ggc	2070	
Pro	Arg	Asp	Gln	Val	Ala	Cys	Leu	Thr	Phe	Phe	Lys	Glu	Arg	Ser	Gly		
			585						590					595			
gtg	gtc	tgc	cag	aca	ggg	cgc	gca	ttc	atg	atc	atc	cag	gag	cag	cgg	2118	
Val	Val	Cys	Gln	Thr	Gly	Arg	Ala	Phe	Met	Ile	Ile	Gln	Glu	Gln	Arg		
			600					605					610				

A1

acc cgg gct gag gag atc ttc agc ctg gac gag gat gtg ctc ccc aag 2166  
 Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp Glu Asp Val Leu Pro Lys  
 615 620 625

cca agc ttc cac cat cac agc ttc tgg gtc aac atc tct aac tgc agc 2214  
 Pro Ser Phe His His His Ser Phe Trp Val Asn Ile Ser Asn Cys Ser  
 630 635 640

ccc acg agc ggc aag cag cta gac ctg ctc ttc tcg gtg aca ctt acc 2262  
 Pro Thr Ser Gly Lys Gln Leu Asp Leu Leu Phe Ser Val Thr Leu Thr  
 645 650 655 660

cca agg act gtg gac ttg act gtc atc ctc atc gca gcg gtg gga ggt 2310  
 Pro Arg Thr Val Asp Leu Thr Val Ile Leu Ile Ala Ala Val Gly Gly  
 665 670 675

gga gtc tta ctg ctg tct gcc ctc ggg ctc atc att tgc tgt gtg aaa 2358  
 Gly Val Leu Leu Leu Ser Ala Leu Gly Leu Ile Ile Cys Cys Val Lys  
 680 685 690

aag aag aaa aag aag aca aac aag ggc ccc gct gtg ggt atc tac aat 2406  
 Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro Ala Val Gly Ile Tyr Asn  
 695 700 705

ggc aac atc aat act gag atg ccg agg cag cca aaa aag ttt cag aaa 2454  
 Gly Asn Ile Asn Thr Glu Met Pro Arg Gln Pro Lys Lys Phe Gln Lys  
 710 715 720

ggg cga aag gac aat gac tcc cat gtg tat gca gtc atc gag gac acc 2502  
 Gly Arg Lys Asp Asn Asp Ser His Val Tyr Ala Val Ile Glu Asp Thr  
 725 730 735 740

atg gta tat ggg cat ctg cta cag gat tcc agc ggc tcc ttc ctg cag 2550  
 Met Val Tyr Gly His Leu Leu Gln Asp Ser Ser Gly Ser Phe Leu Gln  
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cca gag gtg gac acc tac cgg ccg ttc cag ggc acc atg ggg gtc tgt 2598  
 Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln Gly Thr Met Gly Val Cys  
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cct ccc tcc cca ccc acc ata tgc tcc agg gcc cca act gca aag ttg 2646  
 Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg Ala Pro Thr Ala Lys Leu  
 775 780 785

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 Ala Thr Glu Glu Pro Pro Pro Arg Ser Pro Pro Glu Ser Glu Ser Glu  
 790 795 800

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 Pro Tyr Thr Phe Ser His Pro Asn Asn Gly Asp Val Ser Ser Lys Asp  
 805 810 815 820

aca gac att ccc tta ctg aac act cag gag ccc atg gag cca gca gaa 2790  
 Thr Asp Ile Pro Leu Leu Asn Thr Gln Glu Pro Met Glu Pro Ala Glu  
 825 830 835

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A1



agtcctcgcca aaaaaaaaaa

6163

&lt;210&gt; 4

&lt;211&gt; 836

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

Met	Ala	Gly	Leu	Asn	Cys	Gly	Val	Ser	Ile	Ala	Leu	Leu	Gly	Val	Leu
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Leu	Leu	Gly	Ala	Ala	Arg	Leu	Pro	Arg	Gly	Ala	Glu	Ala	Phe	Glu	Ile
			20					25					30		

Ala	Leu	Pro	Arg	Glu	Ser	Asn	Ile	Thr	Val	Leu	Ile	Lys	Leu	Gly	Thr
		35					40					45			

Pro	Thr	Leu	Leu	Ala	Lys	Pro	Cys	Tyr	Ile	Val	Ile	Ser	Lys	Arg	His
	50					55					60				

Ile	Thr	Met	Leu	Ser	Ile	Lys	Ser	Gly	Glu	Arg	Ile	Val	Phe	Thr	Phe
65					70					75					80

Ser	Cys	Gln	Ser	Pro	Glu	Asn	His	Phe	Val	Ile	Glu	Ile	Gln	Lys	Asn
				85					90					95	

Ile	Asp	Cys	Met	Ser	Gly	Pro	Cys	Pro	Phe	Gly	Glu	Val	Gln	Leu	Gln
			100					105					110		

Pro	Ser	Thr	Ser	Leu	Leu	Pro	Thr	Leu	Asn	Arg	Thr	Phe	Ile	Trp	Asp
		115					120					125			

Val	Lys	Ala	His	Lys	Ser	Ile	Gly	Leu	Glu	Leu	Gln	Phe	Ser	Ile	Pro
	130					135					140				

Arg	Leu	Arg	Gln	Ile	Gly	Pro	Gly	Glu	Ser	Cys	Pro	Asp	Gly	Val	Thr
145					150					155					160

His	Ser	Ile	Ser	Gly	Arg	Ile	Asp	Ala	Thr	Val	Val	Arg	Ile	Gly	Thr
				165					170					175	

Phe	Cys	Ser	Asn	Gly	Thr	Val	Ser	Arg	Ile	Lys	Met	Gln	Glu	Gly	Val
			180					185					190		

Lys	Met	Ala	Leu	His	Leu	Pro	Trp	Phe	His	Pro	Arg	Asn	Val	Ser	Gly
		195					200					205			

Phe	Ser	Ile	Ala	Asn	Arg	Ser	Ser	Ile	Lys	Arg	Leu	Cys	Ile	Ile	Glu
	210					215					220				

Ser	Val	Phe	Glu	Gly	Glu	Gly	Ser	Ala	Thr	Leu	Met	Ser	Ala	Asn	Tyr
225					230					235					240

Pro	Glu	Gly	Phe	Pro	Glu	Asp	Glu	Leu	Met	Thr	Trp	Gln	Phe	Val	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Al

Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr Leu Arg  
 545 550 555 560  
 Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val Ser Trp  
 565 570 575  
 Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe Phe Lys  
 580 585 590  
 Glu Arg Ser Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met Ile Ile  
 595 600 605  
 Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp Glu Asp  
 610 615 620  
 Val Leu Pro Lys Pro Ser Phe His His His Ser Phe Trp Val Asn Ile  
 625 630 635 640  
 Ser Asn Cys Ser Pro Thr Ser Gly Lys Gln Leu Asp Leu Leu Phe Ser  
 645 650 655  
 Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu Ile Ala  
 660 665 670  
 Ala Val Gly Gly Gly Val Leu Leu Leu Ser Ala Leu Gly Leu Ile Ile  
 675 680 685  
 Cys Cys Val Lys Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro Ala Val  
 690 695 700  
 Gly Ile Tyr Asn Gly Asn Ile Asn Thr Glu Met Pro Arg Gln Pro Lys  
 705 710 715 720  
 Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr Ala Val  
 725 730 735  
 Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser Ser Gly  
 740 745 750  
 Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln Gly Thr  
 755 760 765  
 Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg Ala Pro  
 770 775 780  
 Thr Ala Lys Leu Ala Thr Glu Glu Pro Pro Pro Arg Ser Pro Pro Glu  
 785 790 795 800  
 Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly Asp Val  
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 820 825 830  
 Glu Pro Ala Glu  
 835

<210> 5  
 <211> 23  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> Description of the artificial sequence: Primer

<400> 5  
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23

<210> 6  
 <211> 26  
 <212> DNA  
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<220>  
 <223> Description of the artificial sequence: Primer

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26

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25

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26

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<223> Description of the artificial sequence: Primer

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36

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<223> Description of the artificial sequence: Primer

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20

<210> 11  
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20

<210> 12  
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<223> Description of the artificial sequence: Primer

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17

<210> 13  
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<223> Description of the artificial sequence: Primer

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22

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<223> Description of the artificial sequence: Primer

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<210> 15

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<212> DNA

<213> Artificial sequence

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<223> Description of the artificial sequence: Primer

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22

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<211> 21

<212> DNA

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<223> Description of the artificial sequence: Primer

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<223> Description of the artificial sequence: Primer

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<223> Description of the artificial sequence: Primer

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26

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<223> Description of the artificial sequence: Primer

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ccaagaagga aggctggaa

19

<210> 25

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: Primer

<400> 25

tgcaggaggc attgctgatg

20

<210> 26

<211> 19

<212> DNA

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<220>

<223> Description of the artificial sequence: Primer

<400> 26



aaatcgtgca cttgcaggc

19

<210> 27  
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<220>  
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18

<210> 28  
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<220>  
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21

<210> 29  
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19

<210> 30  
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24

<210> 31  
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<212> DNA  
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43

<210> 32

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22

<210> 33

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<212> DNA

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<400> 33

ggctcgagct c

11

<210> 34

<211> 22

<212> DNA

<213> Artificial sequence

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<400> 34

ggccatgtcc ggtgggcttg tg

22

<210> 35

<211> 26

<212> DNA

<213> Artificial sequence

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<400> 35  
ctcaaaactc ctggacaagt tgctgg 26

<210> 36  
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<400> 36  
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<210> 37  
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<400> 37  
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<210> 38  
<211> 23  
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<400> 38  
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<210> 39  
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<400> 39  
agaacccta gcagtgcgat agagac 26

<210> 40

<211> 27  
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gaactgtaat gttgctttct cgtggca

A1  
Conclude